

Bald Eagle

(*Haliaeetus leucocephalus*)



Bald eagles are found only in (endemic to) North America. From Alaska and northern Canada to the Gulf of Mexico, bald eagles occur near lakes, rivers and reservoirs, and along the Atlantic and Pacific coasts. In 1782, the Continental Congress of the United States adopted the bird as the nation's symbol. Since that time, when bald eagles were apparently more common and frequently observed, bald eagle populations have incurred dramatic changes.

Initially, the influence of people on bald eagles was limited and localized; but, as human populations grew and expanded, increased human activities negatively impacted bald eagle populations. Habitat modification and loss, shooting, trapping, poisoning and electrocution have all contributed to the decline of the bald eagle in portions of its range. However, the most significant cause for population declines was the use of DDT during WWII and the subsequent widespread use of this and other organochlorine insecticides. These persistent chemicals were passed from aquatic insects and invertebrates to minnows to larger fish and to bald eagles and other birds.

When bald eagles consumed contaminated fish and other prey, residues of these insecticides became concentrated in stored body fats. Eventually, the concentrated chemicals interfered with the eagle's ability to lay eggs with shells strong enough to withstand incubation. Nesting attempts failed, and, by the 1960s, the numbers of bald eagles in most of the lower 48 states had declined

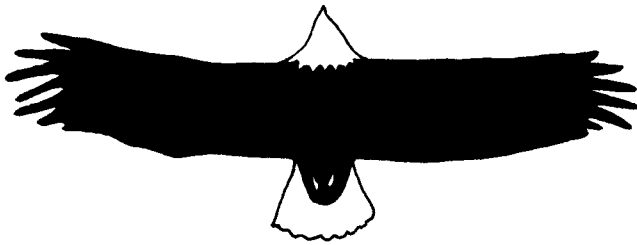
drastically while populations in Alaska and northern Canada remained relatively stable.

With acknowledgement of the detrimental effects of DDT, its use in the United States was banned in 1972. At about the same time, the bald eagle was listed by the U.S. Fish and Wildlife Service as "Endangered" in most states. Under the Endangered Species Act (1973), programs for the recovery and protection of bald eagles and their habitats were implemented.

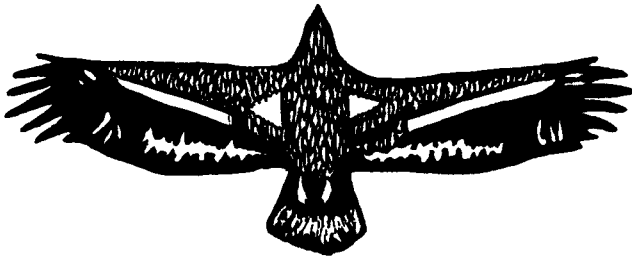
Today, bald eagle populations have improved. From the low average winter counts of less than 4,000 bald eagles in the lower 48 states during the 1960s, current counts average about 13,000 wintering birds. In 1995 federal status of the bald eagle was changed to "Threatened," and in 2008 the U.S. Fish and Wildlife Service removed the species from the Endangered Species list entirely.

Bald Eagles in Utah

Utah hosts one of the largest state populations of wintering bald eagles. More than 1,200 bald eagles have been counted in Utah during recent years. About 3,000 to 4,000 of the 13,000 bald eagles that winter in the lower 48 states occur west of the Rocky Mountains. Twenty-five to thirty percent of these western eagles spend the winter in Utah, indicating the significance of Utah's winter habitat.



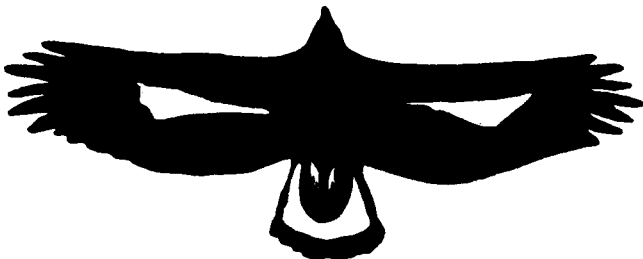
Adult bald eagle. White head and tail, dark body.



Immature bald eagle. Mottling and white diagonal line and spot of underwing.



Adult golden eagle. Uniformly dark with golden head and nape.



Immature golden eagle. White at base of flight and tail feathers, dark body.

Description

The scientific name for the bald eagle is descriptive of the species' association with water and of its most distinguishing characteristic. *Haliaeetus leucocephalus* is the Greek wording for "sea eagle with white head." The bald eagle was named when "bald" (from the Welsh origin "balde") also meant white or white-faced. In adult plumage, the fully feathered head of the bald eagle is white, as is the tail.

The bald eagle is a large bird with an average wingspan reaching from six and a half to eight feet. Females and males are similar in appearance, but females are slightly larger. Bald eagles are about three feet in length from head to tail tip and weigh from 8 to 15 pounds.

The adult bald eagle is easily recognized by its overall dark body and white head and tail. Bald eagles attain the distinctive white head as they reach maturity at about four or five years of age. Before this age, their plumage is generally dark with white mottling on body, wing and tail feathers. Even with varying degrees of white in plumages of individuals, young bald eagles in flight can usually be identified by the pattern of a white diagonal line and white spot on the underwing.

The golden eagle, Utah's other eagle species, is similar in appearance to the bald eagle in their sub-adult plumage. It is also a large, dark eagle. The two species, however, can be distinguished by a combination of characteristics. The top of the head and the nape of the golden eagle is distinctly "golden" in color in their adult plumage. Unlike the bald eagle, the golden eagle's legs are feathered all the way to the toes. Adult golden eagles appear uniformly dark with a light gray barring on flight and tail feathers seen only at close range. Younger golden eagles do have white in their plumage, but the white is typically restricted to the base of the wing and tail feathers and not in the body feathers.

In flight, the bald eagle has a relatively large head that extends forward of the wings more than half the length of the tail. In contrast, the golden eagle's head extends forward of the wings less than half the length of the tail.

When observing eagles, also listen for vocalizations. Bald eagles are very vocal, particularly when they are around other eagles. Golden eagles, on the other hand, tend to be silent.

In flight, bald eagles typically fly with slow, powerful wing beats. When soaring, their wings are usually flat. Occasionally, two bald eagles will lock talons and whirl with each other while flying. Bald eagles average 30 to 40 miles per hour in normal flight but can reach speeds up to 100 miles per hour while diving.

Food Habits Related to Winter Habitats

Dependent primarily on fish for food during the breeding season, bald eagles move south from their northern breeding grounds in Canada and Alaska by late October each year. Bald eagles are found throughout Utah during the winter and typically begin arriving in November. Highest numbers of bald eagles occur here in January and February, and most begin heading north again in March.

Fish are also an important winter food for eagles, but wintering eagles are opportunistic feeders with more catholic diets. While bald eagles may winter near unfrozen, open water, carrion along rural roadways, typically consisting of road- and hunter-killed jackrabbits and mule deer, provides most of the food for eagles wintering in Utah.

The largest concentrations of wintering bald eagles in Utah occur near the Great Salt Lake and in historic roost sites of the nearby Wasatch Mountains. High numbers of birds have been counted in the desert valleys of northcentral Utah and along major rivers in the eastern and southern portions of the state.

Behavior

Bald eagles often congregate in large numbers at feeding, perching and roosting sites. They commonly use large cottonwoods along rivers and coniferous trees at higher elevations for perching during the day and roosting at night. Roost sites can be quite a distance from where the eagles spend the day. Many of the bald eagles in the desert valleys return at night to wooded canyons of adjacent mountain ridges for cover and protection from weather and disturbance.

Bald eagles most frequently hunt from perches, but they may also hunt while in flight. In the winter, they occasionally may be observed sitting on ice at the edge of open water. Their eyesight is five to six times more powerful than ours, and they are capable of spotting fish and other prey at great distances.

By March, bald eagles begin leaving Utah to move north again to summer breeding grounds. Studies of marked and transmitter-equipped eagles have revealed that some of Utah's wintering bald eagles nest in areas as far away as the Northwest Territories of Canada. The dependency of migratory species like the bald eagle on both breeding and wintering habitats creates critical ecological links between even very distant locations like Utah and the Northwest Territories. The winter habitat in Utah is as important to bald eagle populations as is their prime breeding habitat further north.

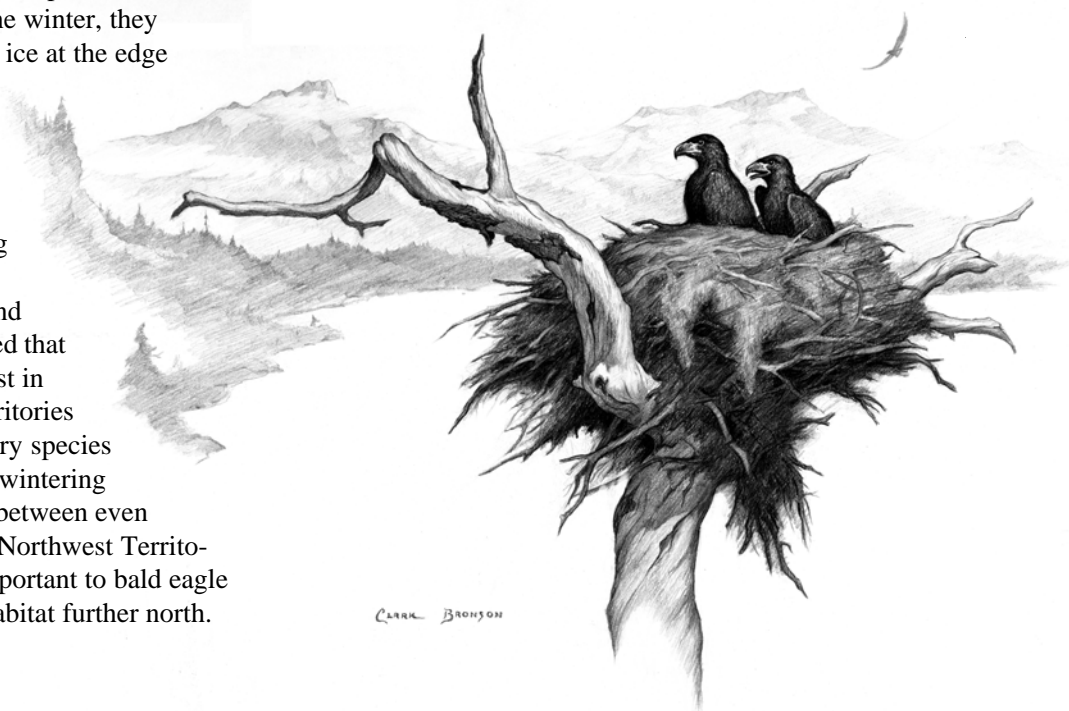
Reproduction

The onset of nesting activities by bald eagles in North America varies with latitude. Most of the eagles that winter in Utah reach their summer grounds by April. Pairs typically return to the same breeding locations each year, and spectacular aerial displays by both the male and female are part of their courtship behavior. Large stick nests, often three to five feet in diameter, are usually placed in trees. The eagles add new sticks to the nest each year, and some nests can be as tall as five or six feet.

One to three eggs are laid, and both parents share in the incubation that lasts about 35 days. The young birds leave the nest 10 to 11 weeks after hatching. They remain dependent on the adults for a long period after fledging as they improve their flying strength and hunting ability.

Currently, eleven bald eagle pairs are known to nest in widely scattered locations throughout Utah. Some of these nesting pairs have been active year after year for a long period of time, dating back to at least 1983. One of the known pairs has enjoyed exceptional nesting success: thirty-two young have been produced over a thirteen-year period.

It is strongly suspected that other nesting pairs exist in Utah at the present time. After many years of monitoring nests and searching for new, active bald eagle pairs in Utah, the recovery goal of ten nesting pairs set by the U. S. Fish and Wildlife Service has been attained.



Current Status and Management

Bald eagles are protected by the Utah Wildlife Code, the Migratory Bird Treaty Act, and the Bald and Golden Eagle Protection Act. Although the bald eagle is no longer listed on the Endangered Species List, the species remains listed as a Species of Concern in Utah, a subset of the State Sensitive Species List. State and federal laws prohibit harassing, injuring or killing eagles, or damaging their nests. Midwinter surveys of bald eagles within the lower 48 states were initiated by the National Wildlife Federation in 1979. These annual surveys are conducted to monitor wintering eagles and to identify important winter habitats and concentration areas.

With increasing numbers of bald eagles nesting in Utah, it is important to also monitor breeding habitats. Cottonwood trees along Utah's rivers, lakes and reservoirs are critical for roost sites as well as summer nest sites. Loss of this habitat jeopardizes both wintering and breeding populations, and excessive human disturbance of this habitat during roosting or breeding may cause site abandonment.

Utah Division of Wildlife Resources wildlife biologists annually monitor bald eagle wintering and breeding activity and associated habitat. In addition to the midwinter survey of Utah's bald eagle population, wildlife biologists survey nest sites and occasionally band the eaglets before they fledge. Banding the young birds helps monitor movement within the state or during migration. Future plans include closer observation of nest sites during the breeding season to document activity and help ensure successful reproduction.

What You Can Do

- Participate in Utah's Bald Eagle Day sponsored by the Watchable Wildlife Program of the Utah Division of Wildlife Resources. For Bald Eagle Day, Division personnel provide guided observation opportunities at sites throughout Utah where there are large concentrations of wintering bald eagles. Bald Eagle Day is usually scheduled for early

- Report all observations of eagles in areas of the state where they have not previously been sighted. Also note any nest sites and report them to the Utah Division of Wildlife Resources. If you find an injured or dead eagle, please contact Wildlife Resources as soon as possible.

- Remember that bald eagles and other wildlife may be sensitive to your presence. Respect their needs and act responsibly. Disturbances may interfere with their ability to fulfill daily needs for food and energy balance and may cause abandonment of sites. Observe them quietly and from a distance.

- For more information about bald eagles, contact the Utah Division of Wildlife Resources, 1594 West North Temple, Suite 2110, Salt Lake City, UT 84116. (801) 538-4700.

Additional Reading

Dunne, Pete, David Sibley and Clay Sutton. *Hawks in Flight*. Houghton Mifflin Company, Boston, 1988.

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